

Appl. No. 09/715,690
Amdt. dated May 19, 2003
Reply to Office Action of March 17, 2003

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IN THE CLAIMS

Please note that no amendments have been made to the claims.

1. (previously amended) A slurry, comprising a mixture of:
a surfactant containing an alkyltrimethylammonium cation; a chelating buffer system;
an abrasive; an oxidizer; and a corrosion inhibitor; wherein the slurry has a pH between 2.5
and 7.0.
2. (original) The slurry of Claim 1, wherein the surfactant comprises
cetyltrimethylammonium bromide dissolved in the mixture.
3. (original) The slurry of Claim 1, wherein the surfactant comprises
cetyltrimethylammonium cations and halogen anions.
4. (original) The slurry of Claim 3, wherein the abrasive comprises silica, the corrosion
inhibitor comprises benzotriazole, and the oxidizer comprises hydrogen peroxide dissolved in
the mixture.
5. (original) The slurry of Claim 1, wherein the chelating buffer system comprises
ammonium bicitrate and potassium citrate dissolved in the mixture.

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6. (original) The slurry of Claim 1, wherein the chelating buffer system is selected from the group consisting of citric acid/potassium citrate, and ammonium bicarbonate/potassium citrate.
7. (original) The slurry of Claim 1, wherein the corrosion inhibitor is selected from the group consisting of benzotriazole and cetyltrimethylammonium bromide.
8. (original) The slurry of Claim 1, wherein the surfactant comprises between 0.003M and 0.075M cetyltrimethylammonium bromide in the mixture.
9. (original) The slurry of Claim 1, wherein the surfactant comprises cetyltrimethylammonium hydroxide dissolved in the mixture.
10. (original) The slurry of Claim 1, wherein the surfactant comprises both cetyltrimethylammonium hydroxide and cetyltrimethylammonium bromide dissolved in the mixture.
11. (previously amended) A copper polish slurry, comprising in combination:
water, a surfactant containing a alkyltrimethylammonium cation, a chelating buffer system, an abrasive, an oxidizer, and a corrosion inhibitor, wherein the slurry has a pH between 2.5 and 7.0.
12. (previously amended) The slurry of Claim 11, wherein the abrasive comprises silica having a surface area 500 m²/g.

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13. (original) The slurry of Claim 12, wherein the corrosion inhibitor is selected from the group consisting of benzotriazole and cetyltrimethylammonium bromide.

14. (previously amended) The slurry of Claim 11, wherein the corrosion inhibitor is benzotriazole and the surfactant is selected from the group consisting of cetyltrimethylammonium bromide and cetyltrimethylammonium hydroxide.

15. (previously amended) The slurry of Claim 11, wherein the slurry has a density of 1.03 g/ml.

16. (original) The slurry of Claim 11, wherein the oxidizer comprises hydrogen peroxide; and the chelating buffer system comprises citric acid and potassium citrate.